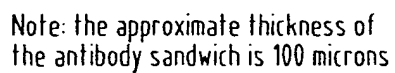
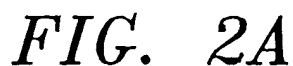


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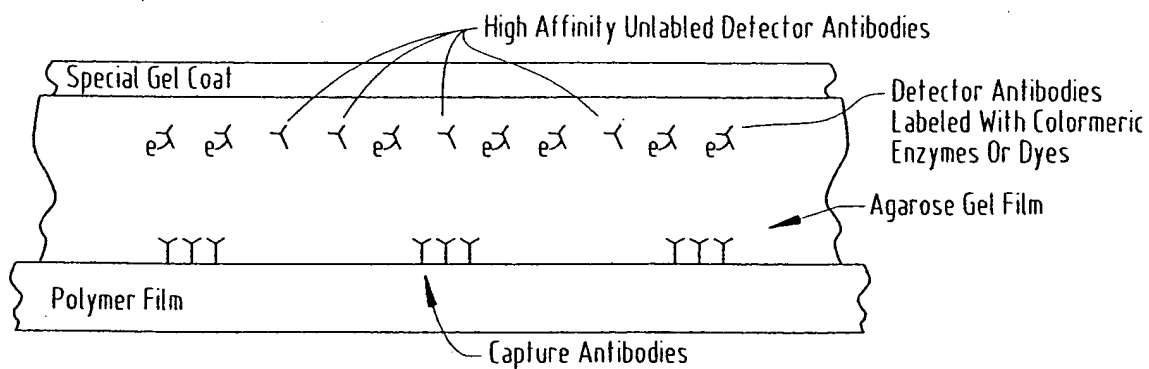
The diagram illustrates a cross-section of a polymer film. At the top, a layer is labeled "Special Gel Coat". Below this, the main body of the film is labeled "Polymer Film". Within the polymer film, there are four vertical, zigzag structures representing "Chromogenic Ligand" molecules. Each ligand has a terminal group with a double bond and two methyl groups, resembling an isopropenyl group. The labels "Special Gel Coat", "Chromogenic Ligand", and "Polymer Film" are connected to their respective parts by lines.

A chromogenic ligand is immobilized on the polymer film in patterns of icons, and is coated with a porous gel which will allow the migration of toxins to the ligand.

SINGLE LIGAND ASSAY OPERATION Step 1

When a toxin enters the special gel and binds to the ligand, it will cause a conformational change in the ligand which results in a color change. Distinct patterns will emerge in about 30 minutes and distinct dark color changes will appear in 72 hours.

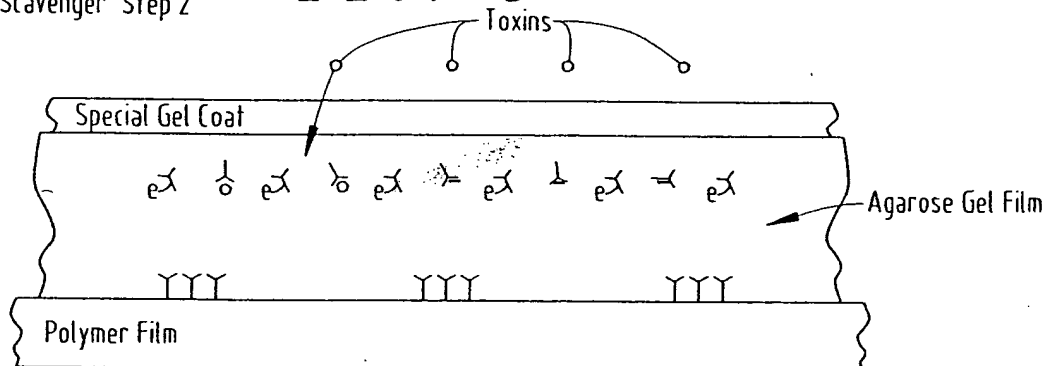
TOXIN QUANTIFICATION BY SCAVANGER SYSTEM



0930563-001504

Scavenger Step 2

FIG. 5



When toxins enter the sandwich, they will bind first with the unlabeled detector antibodies until all of these are bound.

FIG. 6

Scavenger Step 3

After all of the high affinity unlabeled detector antibodies are bound to the toxins, the detector antibodies labeled with a colormetric enzyme will begin to bind to the toxins. The labeled complex will then begin to bind to the capture antibodies, producing a visual cue.

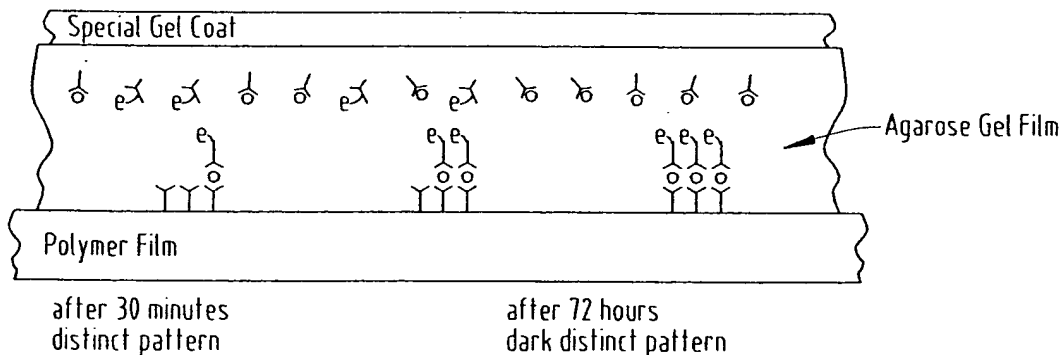


FIG. 7

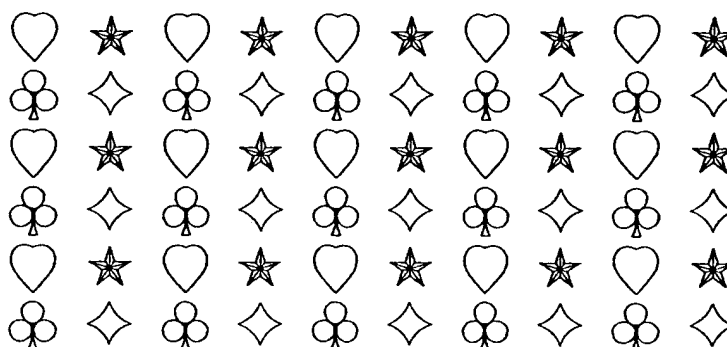


FIG. 7A

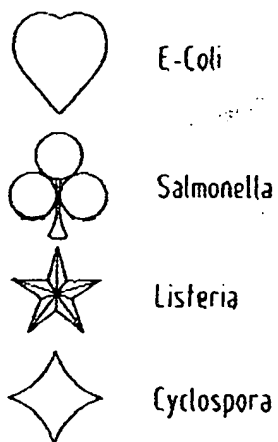


FIG. 8

Checkerboard Dot-Spot Application of RaMBP on a Polyvinylchloride Surface and Detection by GaR^{HRP}

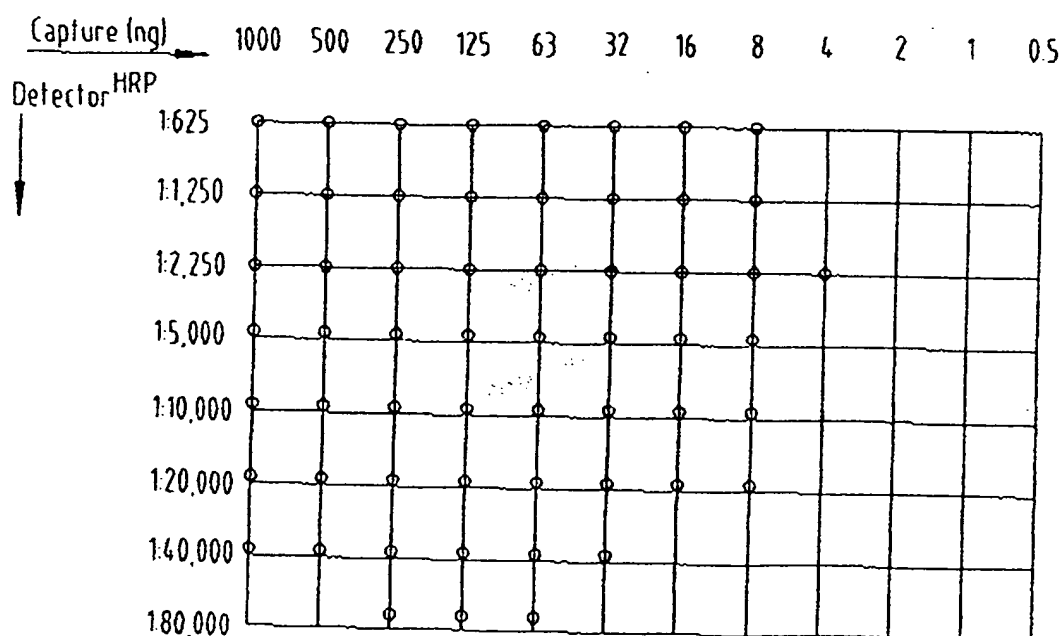


FIG. 9

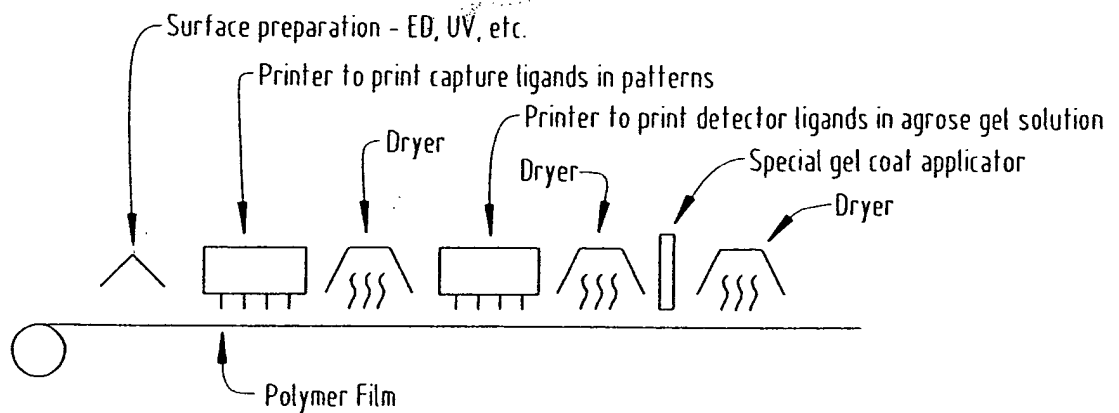
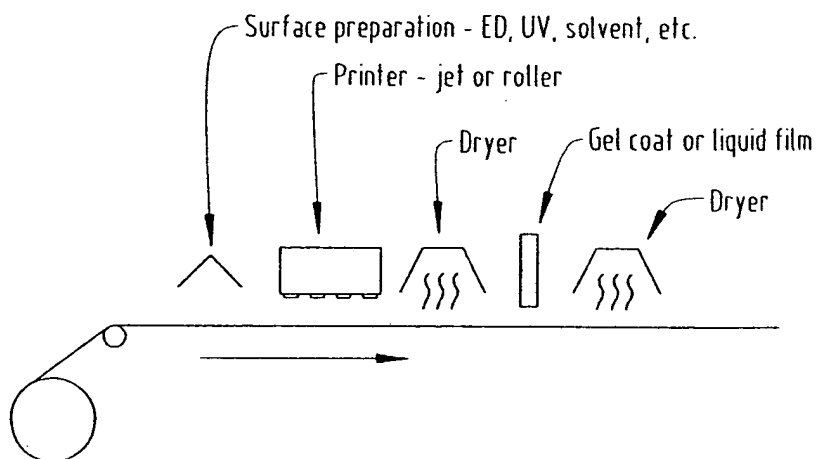


FIG. 10

GENERAL LAYOUT APPLICATION MACHINERY



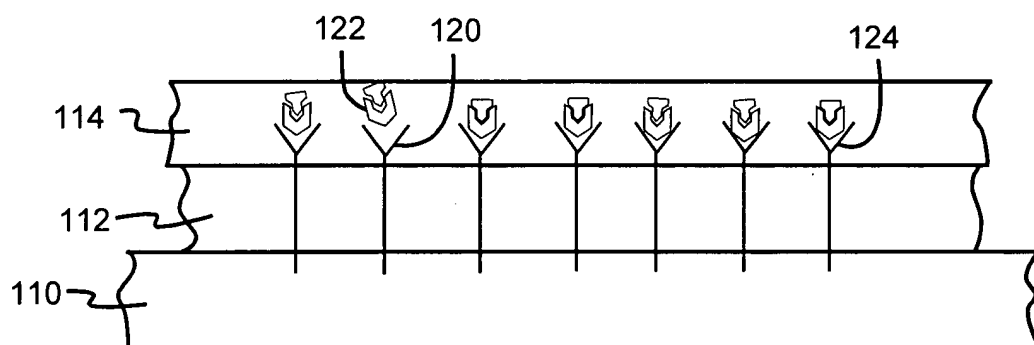


FIG. 11

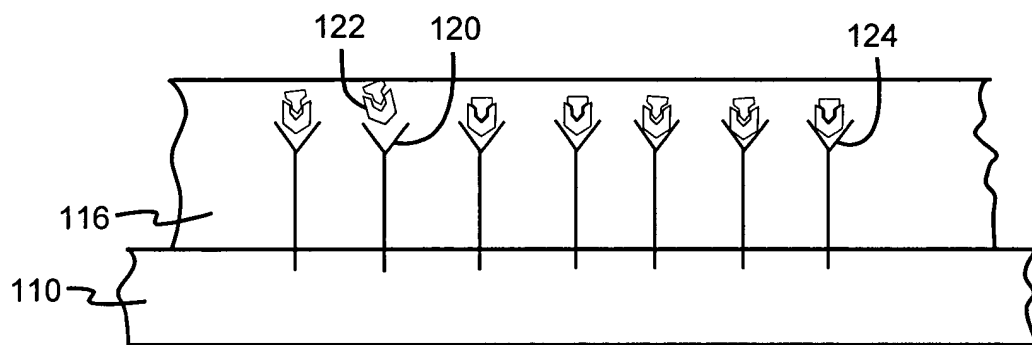


FIG. 12

FIG. 11

FIG. 13A

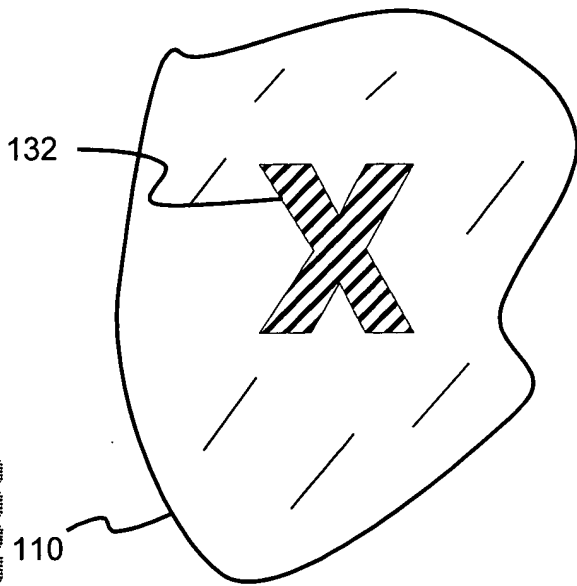


FIG. 13A

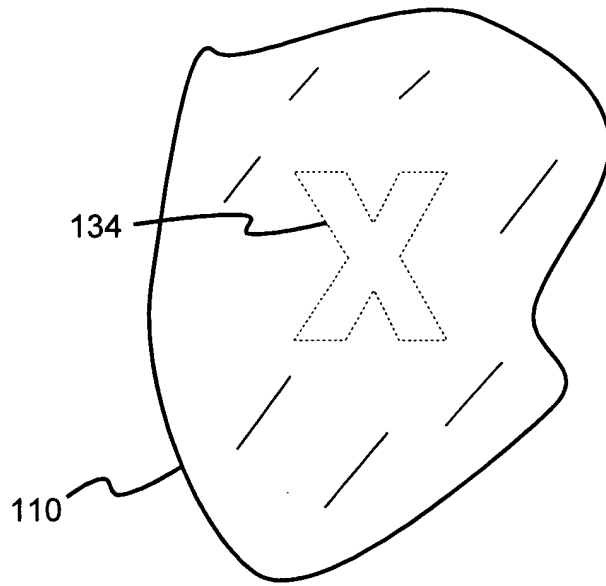


FIG. 13B

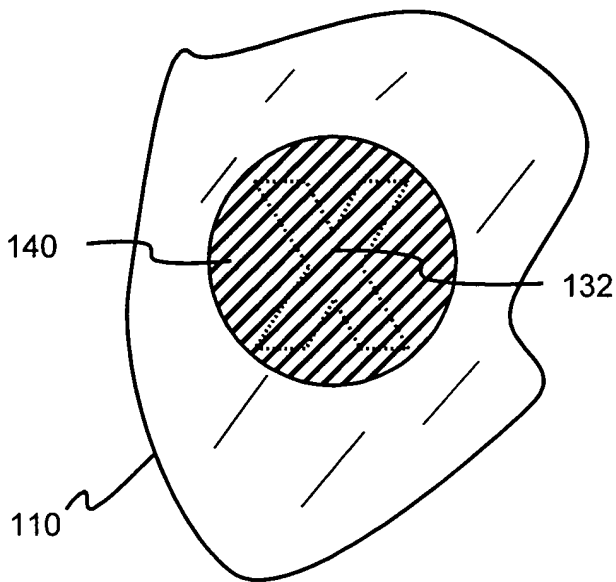


FIG. 14A

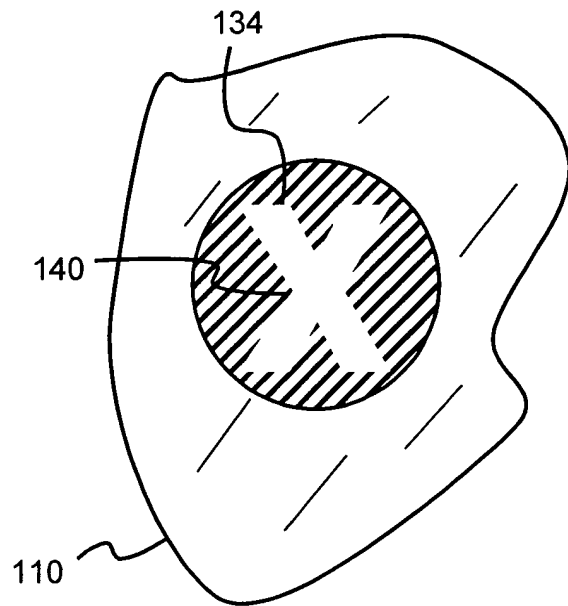


FIG. 14B

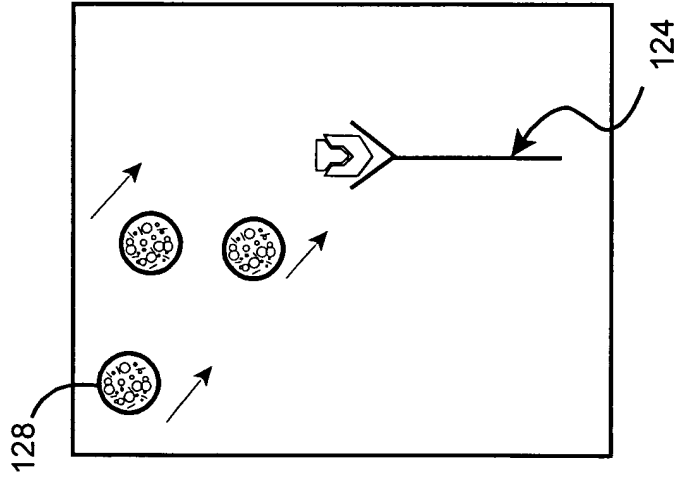


FIG. 15A

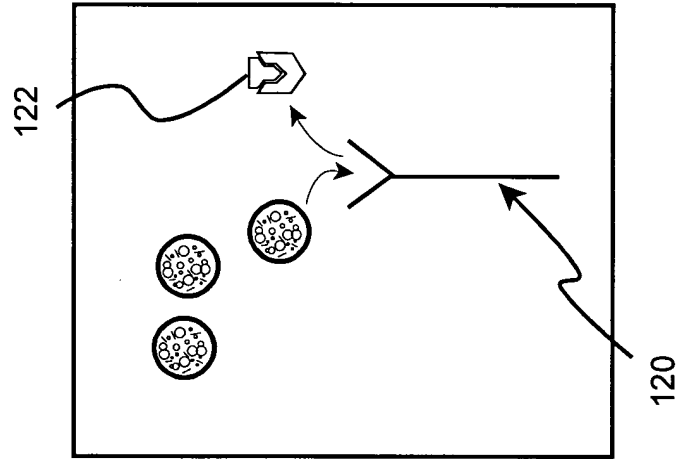


FIG. 15B

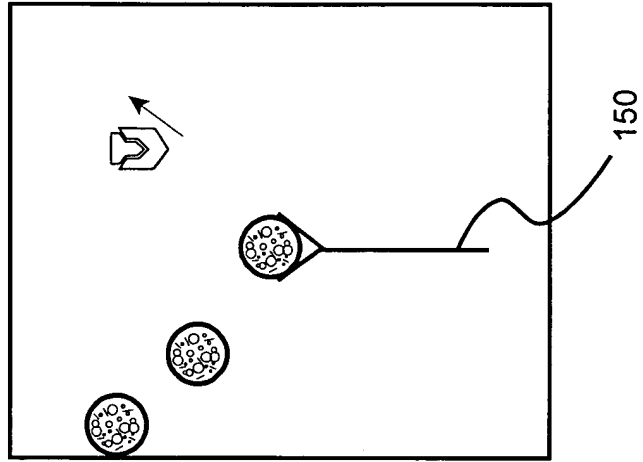


FIG. 15C